

(19) World Intellectual Property
Organization
International Bureau



10/53 6920
Rec'd PCT/IB 31 MAY 2005



(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/050313 A1

(51) International Patent Classification⁷: **B26B 19/40**

[NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(21) International Application Number:

PCT/IB2003/005066

(74) Agent: **BOS, Kornelis, S.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(22) International Filing Date:

6 November 2003 (06.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02080062.9

3 December 2002 (03.12.2002) EP

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

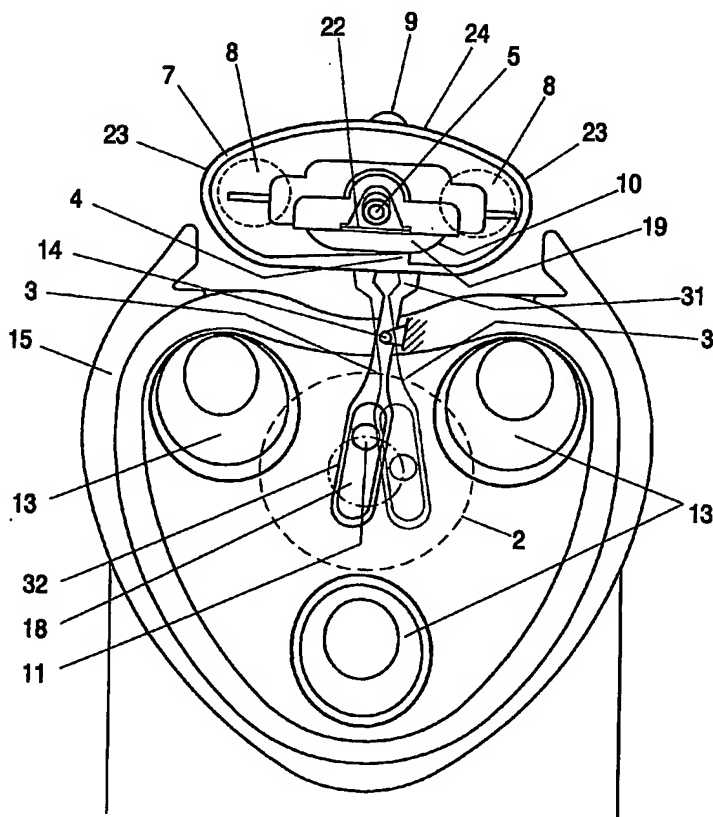
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **GROSS, Jeroen, A.**

[Continued on next page]

(54) Title: HAIR REMOVING APPARATUS



(57) Abstract: A hair removing apparatus has hair removing device (13) for at least partially removing hair projecting from a skin; a liquid channel (16) leading to a liquid outlet (12); a pump (5) for causing liquid displacement through the liquid channel to the liquid outlet; a motor (1) coupled to the hair removing device (13); a transmission coupled to the motor (1) and to the pump (5); and a control structure (4,7-9) operable between at least a first and a second operating condition for dispensing liquid at different rates. The control structure (4,7-9) is arranged for controlling amounts of movement transmitted by the transmission to the pump such that, in the first and second operating conditions, different amounts of movement are transmitted by the transmission to the pump.

WO 2004/050313 A1



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*

INTERNATIONAL SEARCH REPORT

International No.
PCT/IB 03/05066

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B26B19/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B26B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 176 392 A (GWINN ROBERT P) 6 April 1965 (1965-04-06) column 7, line 8-28; figure 2 ----	1
A	FR 2 613 975 A (KUSTER JEAN ;KUSTER RENE (FR); KUSTER MARTINE (FR)) 21 October 1988 (1988-10-21) page 4, line 24-29; figures 1,2 page 6, line 16 -page 7, line 9 ----	1
A	US 6 308 413 B1 (VAN TOOR JOHANNES H ET AL) 30 October 2001 (2001-10-30) the whole document ----	1
A	US 5 121 541 A (PATRAKIS STRATI G) 16 June 1992 (1992-06-16) the whole document -----	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

27 January 2004

Date of mailing of the international search report

02/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Rattenberger, B

INTERNATIONAL SEARCH REPORT

International Search No

PCT/IB 03/05066

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3176392	A	06-04-1965	GB 1017538 A US 3299506 A	19-01-1966 24-01-1967
FR 2613975	A	21-10-1988	FR 2613975 A1	21-10-1988
US 6308413	B1	30-10-2001	AT 194790 T CN 1199359 A ,B CN 1199360 A ,B DE 69702592 D1 DE 69702592 T2 EP 0857101 A1 EP 0858384 A1 EP 0861142 A1 ES 2150268 T3 WO 9808659 A1 WO 9808660 A1 WO 9808661 A1 JP 11514562 T JP 2002514951 T JP 2000500055 T US 6126669 A US 5993180 A US 6312436 B1 US 2002032964 A1 AT 246576 T DE 69816960 D1 EP 0930960 A1 WO 9855274 A1 JP 2000516124 T US 6131288 A	15-08-2000 18-11-1998 18-11-1998 24-08-2000 15-03-2001 12-08-1998 19-08-1998 02-09-1998 16-11-2000 05-03-1998 05-03-1998 05-03-1998 14-12-1999 21-05-2002 11-01-2000 03-10-2000 30-11-1999 06-11-2001 21-03-2002 15-08-2003 11-09-2003 28-07-1999 10-12-1998 05-12-2000 17-10-2000
US 5121541	A	16-06-1992	NONE	